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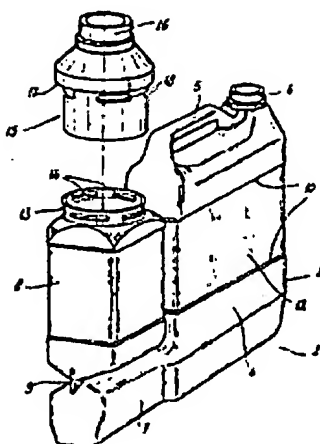
CANISTER MADE OF SYNTHETIC MATERIAL WITH AT LEAST TWO
COMPARTMENTS.

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Abstract

This canister has, molded in the form of a single piece, first compartment 4 which, intended for the direct packaging of a first product, has an opening equipped with closing cap 6, and second compartment 8 intended for receiving container 15 holding a second product.

Application to the packaging of two components of a product which can only be mixed just before use.



The present invention relates to a canister made of synthetic material with at least two compartments.

Certain products and particularly chemical products used in the field of agriculture or plant protection require the addition, before they are used, of an additive or a supplementary product. In effect, it is not always possible to bring about the preparation of a product in the factory insofar as it contains several components that form an unstable mixture. In such a case, it is appropriate to put the different components in contact just before use, or to pour them simultaneously or successively on the surface to be treated. The solution most used currently consists of packaging the different components in separate packages, which are possibly connected, for example, under a film of synthetic material. However, these containers are no longer connected at the site of the user after use, and the instructions for use initially attached to the connected package are often lost, which poses problems of implementation.

Also known is the connection of two containers by a single labeling sleeve containing the instructions for use of the product. However, since the product can only be used after withdrawal of the sleeve, the user often does not have the instructions for use at the time of use of the product.

Also known is the production of a canister made of synthetic material which has two compartments intended for receiving two different products. Besides the fact that the products cannot be mixed before use, this solution is very expensive with regard to the packaging of the products, because of the high cost of transport of the canister from one filling station to the other, particularly when the two filling lines are not located on the same site.

The present invention aims to remedy these disadvantages. To this effect, the canister made of synthetic material to which it relates has, molded in the form of a single piece, a first compartment which, intended for the direct packaging of a first product, has an opening

equipped with a closing cap, and a second compartment intended for receiving a container holding a second product.

This technique is of great interest because it enables one to combine in the same package a number of products of different natures, with it possible for these products to be used independently from one another or mixed before use or poured out simultaneously. The fact that a container is added onto the canister allows filling of the container on the very site of manufacturing of the product which it contains and then sending the containers to the site of filling the canisters, the container being positioned before or after filling of the first compartment of the canister. This solution therefore makes it possible to avoid costly transports of the canisters, as is the case for the canisters that have to be filled with several products.

Furthermore, the nature of the materials respectively constituting the canister and the container intended for being housed in the second compartment can be completely suited to the nature of the packaged products.

According to one structural shape of this canister, the second compartment opens at the same surface as the first compartment, is of lesser height than that of the first compartment, and the first compartment has a part which projects laterally from its main volume and extends under the bottom of the second compartment.

A canister of excellent solidity is thus obtained since the second compartment is connected with the first compartment on two of its sides.

According to another characteristic of the invention, this canister has at the site of the two compartments, two peripheral shoulders delimiting a central part which, recessed with respect to the upper and lower parts, serves as a housing for a single sleeve for identification of the packaged products and their instructions for use.

This arrangement makes it possible to keep the sleeve in place after the first use of the products so that the user has the instructions for use of the products until they are used up.

According to a first structural shape of this canister, the opening of the second compartment has a neck which has interior threading, while the container intended for being introduced into this compartment has, on its exterior surface, a complementary threading. The attachment of the container to the second compartment is done by screwing, the container itself functioning as a closing device for this compartment. As a function of the volume of product to be packaged in the container added into the second compartment, this container can vary in height, the holding with respect to the canister being brought about by screwing and not by resting on the bottom of the compartment.

According to another structural shape of this canister, the opening of the second compartment has a neck which has raised parts and/or hollowed parts, and the container intended for being introduced into this compartment has, on its exterior surface, complementary hollowed

parts and/or raised parts allowing attachment by locking of the container in the second compartment.

The use of such a canister is exactly the same as in the case of an attachment by screwing, with only the means of attachment being different.

According to one characteristic of the invention, the means of attachment of the container on the canister is arranged in such a way as to allow the pour opening of the container to be above the plane of the opening of the second compartment. It is thus possible to empty product out of the container after opening it without disconnecting the container and the canister.

According to another structural shape of this canister, insofar as the container is completely housed inside the second compartment, the latter is equipped with a specific closing means.

In any case, the invention will be better understood with the help of the following description in reference to the appended diagram representing as non-limiting examples several structural shapes of this canister:

Figure 1 is an exploded perspective view of a first canister;

Figure 2 is a perspective view of a second canister in the course of attachment of the container onto it;

Figure 3 is a view partially in longitudinal section of a third canister on a larger scale;

Figure 4 is a perspective view of a detail of closing of the second compartment of the canister of Figure 3.

Canister 2 represented in Figure 1 has body 3 inside of which main compartment 4 is housed. Body 3 has a general parallelepipedic shape, its upper surface being equipped with handle 5 and having a neck for filling and emptying which is closed by cap 6 of known type. In its lower part, body 3 is extended laterally by tubular element 7 whose free end is closed. The space delimited by tubular extension [sic] 7 and the surface of body 3 situated on the same side is used as housing for a second compartment 8 of general parallelepipedic shape connected to body 3 on two of its surfaces by a solid wall of synthetic material 9. It should be noted that the exterior surfaces of the first and second compartments 4, 8 have two shoulders 10 delimiting central part 12 ensuring the positioning of a single labeling sleeve, not represented in the drawing. In the structural shape represented in Figure 1, second compartment 8 has neck 13 from which a number of projections 14 project towards the interior. Associated with second compartment 8 is container 15 of general cylindrical shape, whose neck is closed by cap 16. This container 15 has, on one hand, shoulder 17 allowing it to rest on neck 13 of the second compartment, and on the other hand, below shoulder 17, a number of hollowed parts 18 corresponding to projections 14 of neck 13. Container 15 is therefore attached to second compartment 8 by locking.

It emerges from the preceding that taking into account this method of attachment, the height of container 15 is not necessarily the same as that of second compartment 8, since it is not necessary for container 15 to rest against the bottom of the compartment.

The canister represented in Figure 2, in which the same elements are designated by the same references as in the preceding, is equipped with container 19 which has exterior threading 20, which cooperates with an interior threading not represented in the drawing, arranged on the neck of second compartment 8.

The canister represented in Figure 3, in which the same elements are designated by the same references as in the preceding, has compartment 8 intended for storage of a container completely engaged in the compartment, this container being made up of tube 22 in the structural shape represented. In this case, compartment 8 is equipped with specific closing means consisting of a cap made of synthetic material 23 attached by locking, as is shown from Figures 3 and 4.

As shown from the preceding, the invention contributes a great improvement to the existing technique by providing a canister which is of simple design and practical to use, allowing the packaging of two products of different natures which can if necessary be stored in different materials.

It is obvious that the invention is not limited only to the structural shapes of this canister described above as examples; it rather includes all structural variants.

Claims

1. A canister made of synthetic material with at least two compartments, characterized by the fact that it has, molded in the form of a single piece, first compartment (4) which, intended for the direct packaging of a first product, has an opening equipped with a closing cap (6), and second compartment (8) intended for receiving container (15) holding a second product.

2. A canister according to Claim 1, characterized by the fact that second compartment (8) opens at the same surface as first compartment (4), is of lesser height than that of the first compartment, and first compartment (4) has part (7) which projects laterally from its main volume and extends under the bottom of second compartment (8).

3. A canister according to either of Claims 1 and 2, characterized by the fact that it has, at the site of the two compartments (4, 8), two peripheral shoulders (10) delimiting central part (12) which, recessed with respect to the upper and lower parts, serves as a housing for a single sleeve for identification of the packaged products and their instructions for use.

4. A canister according to any one of Claims 1-3, characterized by the fact that the opening of second compartment (8) has a neck which has interior threading, while container (19)

intended for being introduced into this compartment (8) has complementary threading (20) on its exterior surface.

5. A canister according to any one of Claims 1-3, characterized by the fact that the opening of second compartment (8) has a neck which has raised parts (14) and/or hollowed parts, and container (15) intended for being introduced into this compartment (8) has, on its exterior surface, complementary hollowed parts (18) and/or raised parts allowing attachment by locking of the container in the second compartment.

6. A canister according to either of Claims 4 and 5, characterized by the fact that the means of attachment of container (15, 19) on canister (2) are arranged in such a way as to allow the pouring opening of the container to be above the plane of the opening of the second compartment.

7. A canister according to any one of Claims 1-3, characterized by the fact that insofar as container (22) is completely housed inside second compartment (8), the latter is equipped with specific closing means (23).

FIG.1

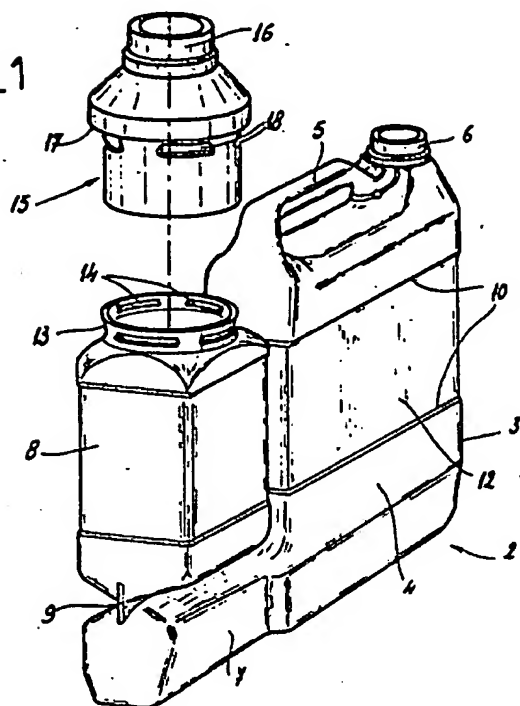


FIG.2

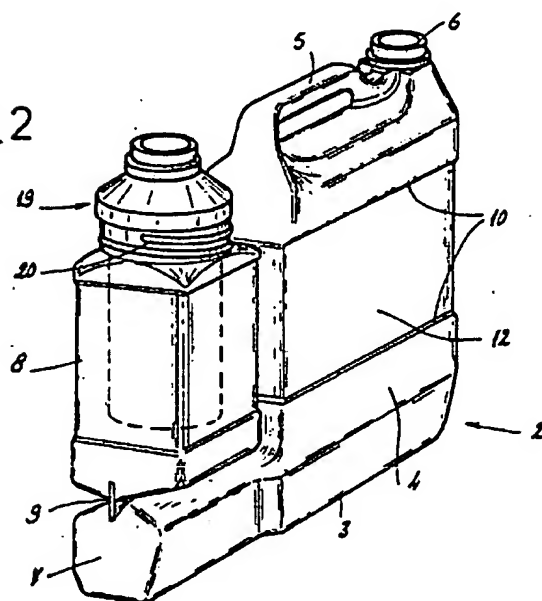


FIG.3

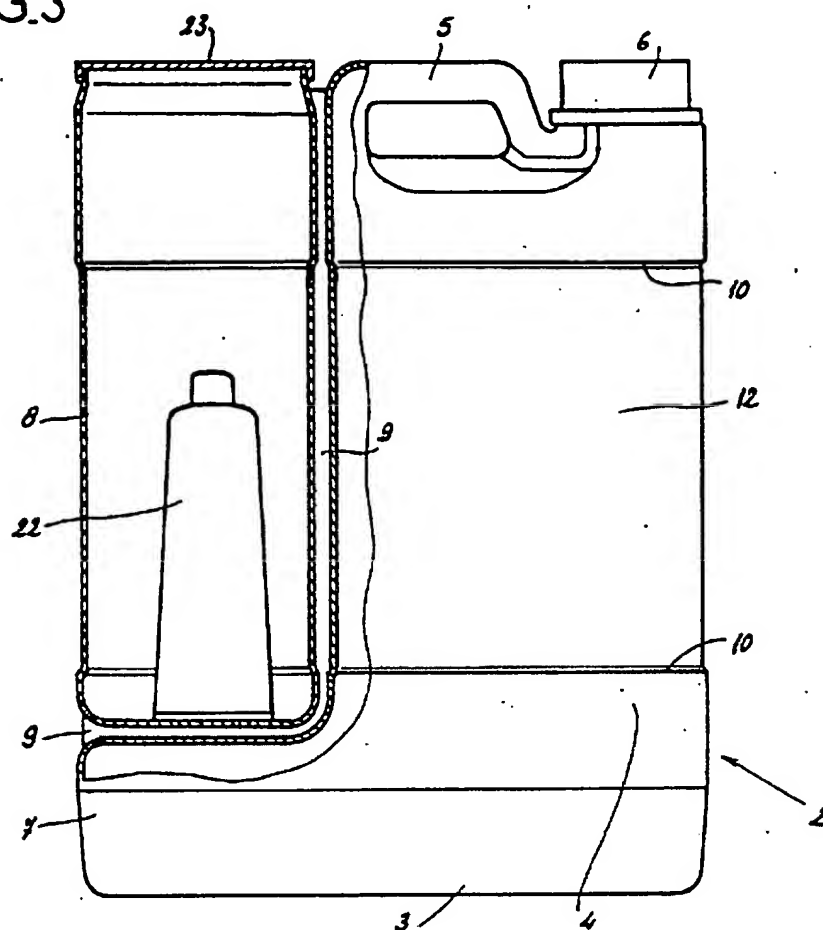


FIG.4

